

30 MARCH 2005



Command

HAZARD COMMUNICATION

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Supersedes AFOSH Standard 161-21,
23 Jan 1989

Pages: 24
Distribution: F

This Air Force Instruction (AFI) implements Air Force Policy Directive (AFPD) 90-8, *Environmental, Safety and Occupational Health Program*. It describes the Air Force Hazard Communication (HAZCOM) Program that puts into effect the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard 29 CFR 1910.1200 for the Air Force. All records created as a result of this publication must be maintained and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://webrims.amc.af.mil>.

Unless otherwise noted, the guidance and procedures outlined in this AFI apply to all U.S. Air Force military and civilian personnel, direct-hire foreign nationals, and indirect hire foreign employees at Air Force installations within the United States, its territories, and in foreign countries, and geographically separated units (GSU). Additionally, this AFI applies to the Air Force Reserves, the Air National Guard, and direct reporting units (DRU) and field operating agencies (FOA) not located on Air Force installations. Government-owned, contractor-operated (GOCO) operations within the continental United States (CONUS) or United States (US) territories shall implement 29 CFR 1910.1200. GOCO operations located either outside the regulatory jurisdiction of the CONUS or in US territories not covered by the Occupational Safety and Health Act shall comply with this standard in response to AF Federal Acquisition Regulation Supplement (AFFARS) Clause 52.223-9004. Contracting officers shall include this clause in the appropriate section of the contract. Send comments and suggested improvements on Air Force Form 847, **Recommendation for Change of Publication**, through channels, to Headquarters, United States Air Force, Air Force Medical Support Agency (AFMSA), 110 Luke Avenue, Room 405, Bolling AFB, DC 20032-7050. Major Commands (MAJCOMs) shall not waive any of the specific requirements of this AFI. MAJCOMs may supplement this AFI when additional or more stringent safety and health criteria are required. See [Attachment 1](#) for a glossary of references and supporting information. This instruction may not address every situation that can arise at a specific work location. Where situations exist that are not covered by this directive, use an appropriate Operational Risk Management (ORM) process to assess.

This publication revises Air Force Occupational Safety and Health (AFOSH) Standard 161-21, *Hazard Communication*, dated 23 January 1989. Changes include placing primary responsibility for hazard com-

munication (HAZCOM) training and worker awareness on the work area/shop supervisor, and clarification of supporting training and technical consultation roles. Employee training consists of comprehensive AF HAZCOM training conducted upon initial assignment, and supplemental training made necessary when a new chemical hazard or exposure have been introduced into the work area/shop.

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Chapter 1

INTRODUCTION

Section 1A—Overview

1.1. Purpose. Hazardous chemicals are found in virtually every Air Force operation, including aircraft and missile maintenance, civil engineering, transportation, supply, medical, and support functions. This AFI is intended to minimize the incidence of chemically induced occupational illnesses and injuries in the workplace by establishing guidance for training employees on the health and physical hazards associated with, and proper preventive measures to be taken when, using or handling hazardous chemicals in work area/shop(s). This program is commonly referred to as the Hazard Communication (HAZCOM) Program, and is not to be confused with other separate and distinct entities such as Hazardous Waste Operations and Emergency Response (HAZWOPER) and the Hazardous Materials (HAZMAT) Management Program (HMMP). HAZCOM is a performance-based program with separate training requirements and successful implementation can only be measured by evaluating worker awareness of work area/shop hazards.

1.2. Scope.

1.2.1. This AFI provides the requirements for an effective Air Force HAZCOM Program for those work area/shop(s) that have workers that handle or use hazardous chemicals. All employees that work in an environment where any chemical is known to be present in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency, will be provided information about the hazardous chemicals to which they are exposed. This information shall be provided by means of a hazard communication program, including but not limited to material safety data sheets (MSDSs), labels, and other forms of warning, and information [e.g. AF Form 3952, *Chemical/Hazardous Material Request/Authorization Forms*, Bioenvironmental Engineering (BE) shop survey letters] and training.

1.2.2. This AFI applies to:

1.2.2.1. All U.S. Air Force military and civilian personnel, direct-hire foreign nationals, and indirect-hire foreign employees at Air Force installations within the Continental United States (CONUS), or its territories, GOCOs, GSUs, and in foreign countries as established in accordance with the applicable Status of Forces Agreement (SOFA).

1.2.2.2. The Air Force Reserves, the Air National Guard, and direct reporting units (DRU) and field operating agencies (FOA) not located on Air Force installations.

1.2.2.3. All Air Force military and civilian personnel who use, handle, or may be potentially exposed to chemical hazards while working under a contractor or working in contractor facilities. Where feasible, Air Force personnel may be included in the contractor's Federal compliant hazard communication program. The Air Force retains ultimate responsibility for Air Force personnel participation and oversight.

1.2.2.4. Contractor employees who are employed at Air Force-owned or operated facilities when authorized by the Contracting Officer in coordination with BE with the following exceptions:

1.2.2.4.1. This AFI does not excuse contractors, as stipulated in their specific contracts, from their compliance obligations under OSHA's Federal HAZCOM regulation or any applicable State and local requirements.

1.2.2.4.2. Contractors are required to train their own employees in accordance with Federal HAZCOM and any applicable State and local requirements. Contractors are not authorized to use the AF HAZCOM Program for this purpose.

1.2.3. The Federal HAZCOM Standard has primacy over state programs at Air Force installations even if the state has an OSHA-approved state program.

1.2.4. Materials exempted from this standard are listed under the Hazard Communication Program description contained in Para. 2.2.

1.2.5. In work operations such as warehousing where employees only handle chemicals in sealed containers which are not opened under normal conditions of use, this instruction applies to these operations only as follows:

1.2.5.1. Supervisors will ensure labels on incoming containers of hazardous chemicals are not removed or defaced.

1.2.5.2. MSDSs received with incoming shipments of sealed containers will be maintained, and employees will have access to the MSDSs. If hazardous chemicals received do not have MSDSs, they will be obtained as soon as possible.

1.2.5.3. Supervisors will train employees on the hazards of the chemicals in their work area/shop, and to the extent necessary to protect them in the event of a spill or leak of a hazardous chemical from a sealed container.

Section 1B—Responsibilities

1.3. Secretary of the Air Force (SAF).

1.3.1. Assistant Secretary of the Air Force for Installations, Environment, and Logistics (SAF/IE). SAF/IE will:

1.3.1.1. Establish Air Force (AF) Environment, Safety, and Occupational Health (ESOH) policy and promulgate and oversee AF HAZCOM program policy.

1.3.1.2. Coordinate AF HAZCOM program implementation and compliance efforts with those of the other Services to identify common areas of interest and to help prevent duplication of effort.

1.3.2. Assistant Secretary of the Air Force for Acquisition (SAF/AQ). SAF/AQ will incorporate AF HAZCOM program requirements, where applicable, into acquisition processes through policies, procedures, and training.

1.4. Headquarters, United States Air Force (HAF).

1.4.1. All HAF Organizations with functional responsibility for base or MAJCOM level users of hazardous materials will:

1.4.1.1. Incorporate HAZCOM program requirements and USAF Health and Safety policies into their processes through policies, procedures, and training.

1.4.1.2. Advocate for funding required to execute the HAZCOM program implementation and compliance responsibilities. Each organization should include the cost of complying with the AF HAZCOM program as a basic responsibility inherent to its operating budget.

1.4.2. Air Force Chief of Safety (AF/SE) will incorporate AF HAZCOM program requirements into SE processes through policies, procedures, and training.

1.4.3. Deputy Chief of Staff for Plans and Programs (AF/XP) will provide guidance to the MAJCOMs through the Annual Planning and Programming Guidance (APPG) and Program Objective Memorandum (POM) Preparation Instruction to consider AF HAZCOM program needs in their POM submittals.

1.4.4. Air Force Surgeon General (AF/SG) will provide policy and guidance to facilitate effective implementation of the AF HAZCOM program.

1.4.5. Air Force Medical Support Agency (AFMSA). AFMSA will:

1.4.5.1. Incorporate AF HAZCOM program requirements into SG processes through policies, procedures, and training.

1.4.5.2. Advocate for funding needed to maintain the occupational health program and the occupational health portion of the MSDS technical focal point.

1.5. Major Commands (MAJCOM), Field Operating Agencies (FOA) and Direct Reporting Units (DRU).

1.5.1. MAJCOM, FOA and DRU Commanders will:

1.5.1.1. Provide execution guidance, resolve questions, and provide interpretation of AF HAZCOM program requirements for their installations and units.

1.5.1.2. Specify AF HAZCOM program support responsibilities for GSUs.

1.5.2. MAJCOM Surgeons (MAJCOM/SG) will:

1.5.2.1. Ensure BE and Public Health (PH) at MAJCOM's installations provide technical assistance, such as health-risk assessment and technical communication assistance to installation personnel covered by this instruction.

1.5.2.2. Validate and allocate resources for occupational health surveillance associated with HAZCOM activities at the MAJCOM's installations.

1.6. Wing/Installation Level Commanders.

1.6.1. Wing/Installation Commanders are ultimately responsible for all aspects of the installation HAZCOM program. Commanders will:

1.6.1.1. Ensure that the HAZCOM program is prepared, implemented, and its effectiveness assessed in work area/shops where hazardous chemicals are stored, used or handled.

1.6.1.2. Ensure supervisors and employees who handle, use, or are potentially exposed to hazardous materials in the course of official Air Force duties are provided information and training on the AF HAZCOM program and the specific hazards in their work area/shops according to Para. [2.7.](#)

- 1.6.1.3. Ensure supervisors of work area/shops where hazardous chemicals are used or handled, prepare and implement a work area/shop-specific HAZCOM program.
- 1.6.1.4. Ensure the Installation HAZMAT Management Program (IHMP) and HAZMARTS outside of Logistics Supply (LRS) meet AF HAZCOM program requirements.
- 1.6.2. The Medical Commander will select a qualified individual to perform the responsibilities described in paragraph [1.6.2.2.](#) for installations without a BE function.
 - 1.6.2.1. Installation PH Flight. PH is the point of contact for occupational health education, and provides consultation on training and technical matters to work area/shop supervisors on the AF HAZCOM Program. While primary responsibility for performing HAZCOM training rests with the work area/shop supervisor, PH will make the appropriate training available to work area/shop supervisors.
 - 1.6.2.2. Installation BE Flight will:
 - 1.6.2.2.1. Provide technical expertise to work area/shops on potential health hazards, training requirements, and regulatory requirements (OSHA expanded standards) associated with hazardous chemicals.
 - 1.6.2.2.2. Develop and publish installation written HAZCOM guidance in accordance with Para. [2.3.](#) This installation guidance will serve as a basic component for all work area/shop HAZCOM programs where workers may be potentially exposed to hazardous chemicals.
 - 1.6.2.2.3. Assist Commanders and work area/shop supervisors by providing specific implementation/compliance technical guidance on the AF HAZCOM program.
 - 1.6.2.2.3.1. Assess effectiveness of worker HAZCOM program training, including work area/shop level training, according to Para. [2.7.5.](#)
 - 1.6.2.2.3.2. Assess work area/shop compliance with the AF HAZCOM program prescribed in this instruction.
 - 1.6.2.2.4. Function as the Office of Primary Responsibility (OPR) for installation MSDS management by: 1) maintaining access to the installation MSDSs contained in the Hazardous Material Information and Resource System (HMIRS) database; 2) establishing procedures for access to HMIRS; 3) establishing local procedures for getting MSDSs to the AF MSDS focal point at the AFIOH; and 4) assisting in MSDS reviews, including interpreting information, understanding health effects, and identifying any necessary protective measures.
 - 1.6.2.2.5. Request from manufacturers, as needed, portions of a MSDS designated by the manufacturer as a trade secret, and send proprietary MSDS information to AFIOH for incorporation into the HMIRS LR version. A sample request letter is provided in [Attachment 2.](#)
 - 1.6.2.2.6. Advise installation work area/shops and personnel on labeling of hazardous chemical containers.
 - 1.6.2.2.7. Review and approve (as appropriate) work area/shop AF Form 3952 requests/authorizations in accordance with AFI 32-7086, *Hazardous Materials Management*, prior to adding the new authorizations to the work area/shop hazardous chemical inventories. Periodically review the hazardous chemical inventory in conjunction with routine shop surveillance or

through an automated Environment, Safety and Occupational Health Management Information System (ESOH-MIS).

1.6.2.2.8. Provide hazard communication advice to the Installation Contracting Office upon request to assist in ensuring all contracts include hazardous material identification and data requirements.

1.6.2.2.9. Request copies of, or contractor access to, the HMIRS when asked to do so by the Administrative Contracting Officer (ACO) for use by a contractor's health and safety representative. BE will coordinate on providing the limited rights version (LR) of the HMIRS to contractor representatives who are health professionals (such as physicians, industrial hygienists, toxicologists, epidemiologists, or occupational health nurses.) BE will also coordinate on providing all other contractor representatives with the basic HMIRS (L) version, which is identical to the LR version, except it does not include proprietary ingredients information.

1.6.3. The Mission Support Group Commander will ensure the Logistics Readiness Squadron (LRS) HAZMART meets AF HAZCOM program requirements.

1.6.3.1. The LRS Commander (LRS/CC) will:

1.6.3.1.1. Ensure HAZMART develops sufficient guidance on receipt of hazardous materials with specific instructions to ensure compliance with all labeling directives found in Para. 2.6. and other applicable instructions.

1.6.3.1.2. Ensure HAZMARTs obtain MSDSs for hazardous materials they receive.

1.6.3.1.3. Ensure all hazardous chemicals are properly labeled prior to issue.

1.6.3.1.4. For each first-time receipt (MSDS not already loaded into the HMIRS) of hazardous materials or whenever chemical constituents or manufacturer change, provide a copy, preferably electronic, of the MSDSs to the MSDS technical focal point at AFIOH for inclusion into HMIRS.

1.6.3.2. Installation Contracting Office will:

1.6.3.2.1. Ensure all contracts through which the Air Force locally procures hazardous materials contain AF Federal Acquisition Regulation Supplements (AFFARS) clause 5352.223.9002 "Hazardous Material Identification and Material Safety Data," or a subsequently adopted equivalent provision.

1.6.3.2.2. Ensure contract specifications require contractors who use hazardous chemicals that Air Force military or civilian workers may be exposed to, provide the information required in AF FAR clause 5352.223.9002 "Hazardous Material Identification and Material Safety Data," or subsequently adopted equivalent provision, to the pertinent Air Force work area/shop supervisor. Additionally, ensure contracts include a requirement for securing all hazardous materials left on site at the end of the work shift or day.

1.6.3.2.3. Conduct a pre-performance conference to advise contractors of the hazardous chemicals used in Air Force operations their employees may encounter during the contract; provide contractors information on hazards and AF protective measures identified, where and how relevant MSDS information is available, and information on the hazardous materials labeling system.

1.6.3.2.4. At the pre-performance conference and subsequently during the contract performance period, the requiring activity quality assurance evaluator will advise work area/shop supervisors and Air Force employees monitoring the performance of contractors of any hazardous chemicals introduced by the contractor.

1.7. Air Force Institute for Operational Health (AFIOH). AFIOH will:

1.7.1. Develop and maintain an electronic template for a written installation HAZCOM program, and make this template available to installations upon request.

1.7.2. Be the technical focal point for entering MSDSs and associated data, into the Defense Logistics Agency's (DLA) HMIRS and steward this data for access through the automated Air Force ESOH-MIS.

1.7.3. Review all MSDSs received for completeness and legibility, request additional information from manufacturers to correct MSDS deficiencies, or return deficient MSDSs to the appropriate procurement officer to correct the deficiencies.

1.7.4. Plan, program, and budget for the occupational health portion of the technical focal point activities.

1.8. Squadron/Unit Level Commanders and Supervisors.

1.8.1. Squadron/Unit Commanders will provide a safe and healthy work environment and ensure all assigned personnel are familiar with the hazards within the work area/shop, understand appropriate ways to manage risk associated with hazardous materials in the work area/shop, and provide the resources to maintain an effective HAZCOM program within work area/shops under their control. Squadron Commanders, or their designated representatives, shall approve written work area/shop-specific training prior to implementation in the work area/shop, and know the location of MSDSs and training materials.

1.8.2. Work Area/Shop Supervisors are responsible for hazard communication in their work area/shops, but may designate an alternate to assist in daily program execution. Work area/shop supervisors and their work area/shop HAZCOM program designee will:

1.8.2.1. Obtain HAZCOM program training and assure all elements of HAZCOM training are conducted IAW paragraph 2.7.2.1. through 2.7.2.2. of the instruction. Supervisors shall contact Public Health for assistance.

1.8.2.2. Implement all elements of the AF HAZCOM program in their work areas as described in **Chapter 2**.

1.8.2.3. Ensure assigned personnel are trained in the AF HAZCOM program as described in **Chapter 2**. Training will be conducted by the work area/shop supervisor or another workplace designee selected by the supervisor.

1.8.2.4. Ensure newly assigned personnel are trained on the types of hazardous materials in their work area at the time of their initial assignment prior to potential exposure to hazardous materials. Ensure personnel receive additional training when a uniquely different type of hazardous material, with different hazardous properties, is introduced into their work area.

1.8.2.5. In accordance with AFI 91-301, *AF Occupational and Environmental Safety, Fire Protection and Health Program*, document the HAZCOM program training and all supplemental hazard communication training of assigned personnel on AF Form 55, *Employee Safety and Health Record*, or in the Core Automated Maintenance System (CAMS) or the AF ESOH-MIS. This information shall be accessible electronically or in hard copy.

1.8.2.6. Develop and maintain a work area/shop-specific HAZCOM written program including a copy of the installation written HAZCOM program described in Para. 2.3., and work area/shop specific program elements defined in paras. 2.5. through 2.9.

1.8.2.7. Implement AF HAZCOM program requirements for contractors in AF work area/shops as provided in Para. 2.10.

1.8.2.8. Maintain or have access to an inventory of all hazardous materials used in the work area/shop and maintain or have access to MSDSs for these materials inventory. At least annually, reconcile MSDSs on file (if files outside of HMIRS and ESOH-MIS are maintained) and the work area/shop hazardous chemical inventory.

1.8.2.9. Ensure all routine and non-routine work tasks are thoroughly described to include associated hazards and controls. This description can be in the form of Technical Orders (TO), Job Safety Analyses (JSA), BE survey letters, Operating Instructions (OI) or specific task lists.

1.8.2.10. Conduct additional hazard communication training on contaminants as required by OSHA expanded standards such as asbestos, benzene, lead, etc. Refer to BE survey letters to identify if expanded standards apply in a work area/shop.

1.8.3. Fire and Emergency Services: Provide technical expertise to work area/shop supervisors on potential fire hazards, make recommendations to work area/shop supervisors regarding fire-prevention controls, storage and handling to minimize or eliminate potential fire and explosion hazards.

1.9. Tenant Units. Tenant units will participate in the AF HAZCOM program conducted by their host installation.

1.10. Laboratories. Laboratories (see definition) are primarily governed by AFOSH Standard 48-22, *Occupational Exposure to Hazardous Chemicals in Laboratories*. Laboratories are not required to establish a written HAZCOM program or maintain a chemical inventory. This standard applies only to laboratories as follows:

1.10.1. MSDSs received must be maintained.

1.10.2. Labels on in-coming containers must be maintained.

1.10.3. Workers must be trained on the hazards they are exposed to IAW Para. 2.7.

Chapter 2

HAZARD COMMUNICATION PROGRAM

2.1. Introduction. AF HAZCOM program requirements apply to any chemical hazard, except as stated in Para. 2.2. below, known to be present in work area/shop(s) in such a manner employees may be exposed under normal conditions of use or in a foreseeable emergency.

2.2. Materials Exempt from the AF HAZCOM Program. AF HAZCOM program requirements do not apply to the following.

- 2.2.1. Hazardous wastes regulated under the Resource Conservation and Recovery Act (RCRA).
- 2.2.2. Hazardous substances subject to a remedial action or removal action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
- 2.2.3. Tobacco or tobacco products.
- 2.2.4. Wood or wood products that will not be processed.
- 2.2.5. Articles. An article is a manufactured item other than fluid or particle: (1) which is formed to a specific shape or design during manufacture; (2) which has end-use function(s) dependent in whole or in part upon its shape or design during end use; and (3) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of hazardous chemicals [as determined under 29 CFR 1910.1200(d)], and does not pose a physical hazard or health risk to employees.
- 2.2.6. Food or alcoholic beverages.
- 2.2.7. Drugs in final form [such as non-prescription and prescription, dry pelletized drugs, e.g., pills or caplets].
- 2.2.8. Cosmetics.
- 2.2.9. Consumer products in normal consumer use such as vehicle propane tanks, copier toner, etc (i.e., material usage in the workplace is for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended).
 - 2.2.9.1. Whether consumer product materials are subject to the AF HAZCOM program and require training requires a case-by-case judgment by the supervisor in consultation with BE. For example:
 - 2.2.9.1.1. Personnel who use window cleaner fluid to clean infrequently will not require this training; however, maintenance personnel using the same window cleaner daily will require training.
 - 2.2.9.1.2. Patrons using automotive cleaners at the auto skills center will not require training; however, auto skills center employees and LRS transportation personnel using the same cleaner as part of their job will require training.
- 2.2.10. Nuisance particulates such as copier toner.

2.2.11. Ionizing and non-ionizing radiation.

2.2.12. Biological hazards.

2.2.13. Munitions as defined in AFI 32-7086, *Hazardous Materials Management*.

2.3. Installation Written Hazard Communication Program. Each Air Force installation whose employees will potentially be exposed to hazardous materials not exempted as described in Para. 2.2. must create a written hazard communication program to support work area/shop implementation of the HAZCOM program. The written program must include installation-specific procedures to meet the HAZCOM program requirements and specifically, will include:

2.3.1. How MSDSs are accessible to employees (see Para. 2.5.).

2.3.2. Container labeling procedures and requirements (see Para. 2.6.).

2.3.3. Training requirements and procedures (see Para. 2.7.).

2.3.4. Chemical inventory requirements (see Para. 2.8.).

2.3.5. Procedures for informing employees regarding hazards of non-routine tasks and unlabeled pipes (see Para. 2.9.).

2.3.6. Procedures for determining the hazard of a chemical (See Para. 2.4.; applies to only work area/shops which produce hazardous chemicals).

2.4. Hazard Determination: The Air Force will rely on the hazard determination of the supplier or manufacturer of purchased chemicals. For Air Force produced chemicals, the Air Force activity controlling the formulation will make the hazard determination and produce an MSDS IAW 29 CFR 1910.1200. The Air Force activity producing the chemical will include hazard determination procedures in their written program, and ensure their personnel are trained on the hazards. If the chemical is transferred to any other organizations, the producing organization will provide a MSDS with the shipment and transmit the MSDS to AFIOH.

2.5. Material Safety Data Sheets. Each MSDS is a detailed information bulletin prepared by the chemical manufacturer describing the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first-aid procedures, and control measures of the listed hazardous chemicals. The MSDS shall be prepared to be consistent with 29 CFR 1910.1200(g) requirements.

2.5.1. An MSDS must be immediately accessible (in either paper or electronic format) for every item on the work area/shop-specific hazardous chemical inventory. The MSDS on file must match the manufacturer and part number/trade name of the material on-hand. In addition, the MSDS preparation date must be consistent with the date/lot of any material on-hand. If a new MSDS is received, but the old material is still on-hand, the MSDS, which matched the old material, must be retained.

2.5.2. MSDSs may be obtained from several sources. These include, but are not limited to, the chemical manufacturer or supplier, installation or unit HAZMART, DoD HMIRS on-line or CD-ROM, or through the ESOH-MIS. If the MSDS is not available from these sources, the BE Flight may be contacted for further assistance.

2.5.3. Access to MSDSs in the work area/shops will be provided as follows:

2.5.3.1. All workers on all shifts must know how to obtain an MSDS, and have unrestricted direct access to MSDSs for their work area/shop during all shifts.

2.5.3.2. MSDSs may be maintained in the work area/shops in paper or electronic version. OSHA does not specifically prohibit any form of access as long as "no barriers to immediate employee access" are created.

2.5.3.3. The location of MSDSs and/or means of access for any work area/shop will be determined locally. The supervisor should consider how long it would take for a worker to obtain an MSDS if it were needed to respond to a spill or if a worker was accidentally splashed with a hazardous chemical.

2.5.3.4. If the primary means for MSDS access is electronic, a back-up system for MSDS access must be established in case primary computer access is disrupted. The back-up system may include, but is not limited to, paper copies, local computer files or CDs at another non-impacted location, telephone, fax, or access through a nearby HAZMART or BE Flight. Local judgment must be used to determine an adequate back-up system on a case-by-case basis.

2.5.3.5. BE or other qualified personnel will provide explanations or interpretations of the MSDS to supervisors and affected workers, as requested, for routine training and planning, and will be available during emergency situations to assist in interpretation of MSDSs.

2.5.3.6. Where personnel must travel between work area/shops during a work shift (e.g., their work is carried out at more than one geographical location such as flight line operations), the MSDS may be kept at the primary work area/shop facility. In this situation, the supervisor shall ensure that personnel can immediately obtain the required information in an emergency.

2.5.4. Ensure any proprietary formulary and/or trade secret information in an MSDS is protected and used only as a management tool for exposure and incident prevention or health hazard education. During the acquisition process, the Bioenvironmental Engineer (BEE) will discuss trade-secret limitations with the work area/shop supervisor; however, supervisors using materials with trade-secret information are encouraged to be familiar with requirements and restrictions listed in 29 CFR 1910.1200(i). When requesting proprietary information, the BEE may be asked to sign a non-disclosure agreement regarding a manufacturer's proprietary information; consult with Legal Services in non-disclosure criteria are not clear.

2.6. Labels and Other Forms of Warning.

2.6.1. Labeling of hazardous chemical containers will be done according to 29 CFR 1910.1200(f), and DoDI 6050.5-H, *DoD Hazardous Chemical Warning Labeling System*.

2.6.2. It is the responsibility of chemical manufacturers, importers and commercial distributors to label containers of hazardous chemicals according to the OSHA's Federal HAZCOM standard. Accordingly, chemical containers entering the installation through the supply system or through local purchase should already be labeled. Supply receiving and HAZMARTs will ensure incoming containers are properly labeled. Supply receiving and HAZMARTS will submit an item discrepancy report to identify any containers received without proper labeling from the manufacturer.

2.6.3. Materials exempted from HAZCOM labeling requirements are described as follows [See 29 CFR 1910.1200(b)(5) if additional details are desired]:

- 2.6.3.1. Any pesticide as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) when subject to the labeling requirements of that Act.
 - 2.6.3.2. Any chemical substance or mixture as such terms are defined in the Toxic Substances Control Act (TSCA) when subject to the labeling requirements of that Act.
 - 2.6.3.3. Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device or product, including materials intended for use as ingredients in such products (e.g., flavors and fragrances), as such terms are defined in the Federal Food, Drug, and Cosmetic Act.
 - 2.6.3.4. Any distilled spirits (beverage alcohols), wine, or malt beverage intended for non-industrial use, as such terms are defined in the Federal Alcohol Administration Act, and regulations issued under that Act, when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Bureau of Alcohol, Tobacco, and Firearms.
 - 2.6.3.5. Any consumer product or hazardous substance as those terms are defined in the Consumer Product Safety Act and Federal Hazardous Substances Act respectively, when subject to a consumer product safety standard or labeling requirement of those Acts, or regulations issued under those Acts by the Consumer Product Safety Commission.
 - 2.6.3.6. Agricultural or vegetable seed treated with pesticides and labeled in accordance with the Federal Seed Act and labeling regulations issued under that Act by the Department of Agriculture.
- 2.6.4. Supervisors will ensure labels on containers of hazardous chemicals used in their work area/shop meet HAZCOM requirements, remain affixed to their containers, and are not obliterated or covered. At minimum, the following information will appear on container labels [refer to 29 CFR 1910.1200(f)(6) for alternate means]:
- 2.6.4.1. The identity of the hazardous chemical(s) in the container.
 - 2.6.4.2. Appropriate hazard warnings that include information about the specific physical and health hazard(s), including target organ effects of the chemical(s) in the container. This may be accomplished using any combination of words, symbols, or pictures.
- 2.6.5. Installation HAZMARTs may affix other labels to containers for locally determined purposes. If the HAZMART label duplicates the Federal HAZCOM standard requirements, the original label may be covered. If the HAZMART label does not duplicate the information required by the Federal HAZCOM standard, information on the original label must remain legible.
- 2.6.6. Transfer of chemicals between containers.
- 2.6.6.1. If an employee transfers a chemical from a labeled container (for example, a 55-gallon drum) into a portable container for the immediate use of the same employee who made the transfer, then the portable container does not need to be labeled according to HAZCOM requirements. Immediate use means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred. If the employee cannot maintain full control over the chemical or departs the work area/shop, and if there is residual material left in the portable container, this material shall either be disposed of under applicable local disposal regulations, returned to its original container, or labeled in accordance with applicable regulations.
 - 2.6.6.2. If a chemical is transferred from a labeled container into a portable container at a central distribution point, such as the installation or unit HAZMART, for use by other employees, then the

portable container must be labeled by the HAZMART in accordance with HAZCOM requirements.

2.7. Employee Information and Training. The work area/shop supervisor is responsible for ensuring all workers are properly trained on the chemical hazards in their work area/shop.

2.7.1. Purpose. Supervisors and employees who handle, use, or are potentially exposed to hazardous materials in the course of official Air Force duties must be provided training on the AF HAZCOM program, including training to address work area/shop-specific hazards prior to the use of hazardous chemicals. Supervisors will ensure the appropriate functionals (i.e., PH, BE, base safety office, and fire department) review and approve the shop specific hazard training program for technical accuracy and completeness prior to implementation in the work area/shop. Contract supervisors and contractors shall be trained according to their specific contract provisions.

2.7.2. Hazard Communication Training. Workers will be provided HAZCOM training prior to working with a material that could potentially create a health hazard, and when work area/shop conditions or hazardous materials change.

2.7.2.1. Initial Training. Workers will receive comprehensive HAZCOM training from their supervisors at the time of their initial assignment in a work area/shop. This training, at a minimum, will include the following:

2.7.2.1.1. Identification of operations or processes in the work area/shop where hazardous chemicals are present or used, and the complete list of hazardous material used in association with work area/shop processes.

2.7.2.1.2. Identification of relevant hazard categories associated with each chemical used (e.g., flammability, carcinogenicity, etc.) or the individual chemical hazards; including, but not limited to, those with specific regulatory requirements (e.g., asbestos, benzene, beryllium, cadmium, formaldehyde, and lead).

2.7.2.1.3. The location and contents of the work area/shop-specific written hazard communication program.

2.7.2.1.4. Proper labeling of hazardous materials.

2.7.2.1.5. How to access and read MSDSs.

2.7.2.1.6. Controls (engineering controls, administrative controls, and personal protective equipment) workers must use to minimize or eliminate exposure to hazardous chemicals specific to a task (e.g., the specific respirator for a specific spray painting process). Supervisors shall refer to the installation BE work area/shop survey reports for specific control requirements.

2.7.2.1.7. Emergency procedures, such as recognition of a spill or accidental chemical release (e.g., visual, odor, alarm) and escape procedures to include the locations of emergency eye wash stations, showers, and monitoring capabilities.

2.7.2.1.8. Chemical hazards associated with non-routine tasks (e.g., solvent tank change-out every three months).

2.7.2.2. Supplemental Training. Training for all potentially affected employees is required when either a new hazard is brought into the work area/shop or a new chemical is introduced. The train-

ing shall include all elements described in Para. 2.7.2. Supervisors may use the AF Form 3952 or BE special survey letters as sources of information to meet this training requirement. When workers change work area/shops either by assigned duties or location, work area/shop-specific training as described in Para. 2.7.2.1. will be re-accomplished only to the extent needed to cover changes in working conditions and potential exposures.

2.7.3. Activities Not Co-located. Air Force employees assigned to non-co-located activities, such as GOCO facilities, will be trained as GSUs (see Para. 2.7.) or they may participate in that GOCO's or other Services' hazard communication training program, as long as the training meets the requirements of the Federal HAZCOM standard.

2.7.4. Documentation of Hazard Communication Training. While the Federal HAZCOM standard does not require documentation of worker training, the Air Force, in accordance with AFI 91-301, as a good management practice, requires work area/shop supervisors to document both worker initial and supplemental hazard communication training on AF Form 55 or in CAMS or in ESOH-MIS. This record should also include external HAZCOM training provided to AF supervisors and employees from contractor organizations where applicable.

2.7.5. Determining the Effectiveness of Hazard Communication Training. HAZCOM is a performance-based standard. Therefore, the effectiveness of worker training will be measured by assessing worker knowledge of basic hazard communication concepts to include, but not be limited to:

2.7.5.1. What processes and chemicals present hazards in their work area/shop and the nature of the hazard.

2.7.5.2. How to access MSDSs for any chemical they use.

2.7.5.3. How to find information on an MSDS.

2.7.5.4. How to interpret the hazard symbols or wording on hazard labels and what precautions (e.g., engineering controls, personal protective equipment, etc.) they must use when working with hazardous chemicals.

2.8. Hazardous Chemical Inventory.

2.8.1. The written work area/shop hazard communication program must include a list of the hazardous chemicals known to be present in a work area/shop (the list may be compiled for the work area/shop as a whole or for specified and readily distinguishable portions of a work area/shop). The identity that is used on the MSDS must be cross-referenced to the inventory. Where accessible, the inventory may be maintained in the ESOH-MIS.

2.8.2. The inventory is a fundamental building block for a HAZCOM program and the nature of the chemicals on the inventory in a work area/shop will determine the scope of the hazard communication program and training requirements appropriate for that work area/shop. NOTE: IAW AFI 32-7086, the IHMP, through the AF Form 3952 authorization process, controls which hazardous chemicals can be used in each work area/shop on an installation.

2.9. Non-Routine Tasks Involving Hazardous Materials.

2.9.1. Non-routine tasks are:

2.9.1.1. Those tasks included within a work area/shop's normal activities but performed infrequently, for example, cleaning a solvent tank and changing the solvent.

2.9.1.2. Temporary duties outside an individual's normal Air Force Specialty Code (AFSC) or job series.

2.9.2. Supervisors will ensure work area/shop operating instructions (OI), specific task lists, and Job Safety Analyses (JSAs) thoroughly describe non-routine tasks, associated hazards, and controls, for the infrequent tasks covered under Para. 2.9.1. OIs do not need to be prepared if technical orders (TO) or other official documents adequately describe these tasks and associated hazards and controls. Supervisors will ensure workers review these procedures before performing the non-routine tasks.

2.9.3. When workers temporarily perform duties outside their normal jobs, the supervisor of the gaining activity will ensure these workers receive the following training prior to beginning the activity:

2.9.3.1. The initial HAZCOM training described in Para. 2.7.2.1. for workers not previously trained.

2.9.3.2. Work area/shop-specific training, as necessary, on work area/shop-specific chemical hazards and associated controls.

2.10. Contractors in AF Work Area/Shop(s). When an Air Force work area/shop uses hazardous chemicals in a way that contractor employees (e.g., a painting contractor working in an industrial shop) may be exposed, then the work area/shop written hazard communication program and access to MSDSs must be provided to the contractors in accordance with 29 CFR 1910.1200(e)(2). The contractor is responsible to determine the adequacy of the HAZCOM information for assessments of contractor employees, and is responsible for their own HAZCOM program.

2.11. Forms Prescribed. Air Force Form 55 (AF55), *Employee Safety and Health Record*;
Air Force Form 3952 (AF3952), *Chemical/Hazardous Material Request/Authorization Form*

GEORGE PEACH TAYLOR, JR., Lieutenant General, USAF, MC, CFS
Surgeon General

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 37-1, *Air Force Information Management*

AFPD 90-8 *Environment, Safety and Occupational Health Program*

AFPD 91-3, *Occupational Safety and Health*

AFI 32-7086, *Hazardous Materials Management*

AFI 48-145, *Occupational Health Program*

AFI 90-901, *Operational Risk Management*

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health Program*

AFOOSH Standard 48-8, *Controlling Exposures to Hazardous Materials*

AFOOSH Standard 48-22, *Occupational Exposure to Hazardous Chemicals in Laboratories*

AFMAN 37-123, *Management of Records*

AFPAM 90-902, *Operational Risk Management (ORM) Guidelines and Tools*

Air Force Federal Acquisition Regulation Supplement (AFFARS) clause 5352.233.9002, "Hazardous Material Identification and Material Safety Data."

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601 *et seq.*

DoDI 6050.5, *DoD Hazard Communication Program (29 Oct 1990)*

DoDI 6050.5-H, *DoD Hazardous Chemical Warning Labeling System*

FED-STD 313D, "Federal Standard, Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities."

Occupational Safety and Health Administration (OSHA), 29 CFR 1910.1200, "Hazard Communication."

Occupational Safety and Health Administration (OSHA), 29 CFR 1910.1450, "Occupational Exposure to Hazardous Chemicals in Laboratories."

Resource Conservation and Recovery Act (RCRA), 42 USC 6901 *et seq.*

Abbreviations and Acronyms

ACO—administrative contracting officer

AF/IL—Headquarters, United States Air Force, Installation and Logistics

AF/ILE—Headquarters, United States Air Force, Civil Engineer

AF/JA—Headquarters, United States Air Force, Judge Advocate General

AF/SE—Headquarters, United States Air Force, Chief of Safety

AF/SG—Headquarters, United States Air Force, Surgeon General

AFI—Air Force instruction

AFIOH—Air Force Institute for Operational Health

AFMSA—Headquarters, United States Air Force, Air Force Medical Support Agency

AFOSH—Air Force Occupational Safety, Fire Prevention, and Health

AFOSH Std—Air Force occupational safety, fire prevention and health standard

AFSC—Air Force specialty code

BE—bioenvironmental engineering flight

BEE—bioenvironmental engineer

CAMS—core automated maintenance system

CERCLA—Comprehensive Environmental Response, Compensation, and Liability Act

CFR—Code of Federal Regulations

CONUS—continental United States

DoD—Department of Defense

DRU—direct reporting unit

ESOH-MIS—environmental, safety, and occupational health management information system

FAR—Federal Acquisition Regulations

FDCA—Food and Drug Cosmetic Act

FIFRA—Federal Insecticide, Fungicide, and Rodenticide Act

FOA—field operating agencies

GOCO—government-owned, contractor-operated

GSU—geographically separated units

HAF—Headquarters, United States Air Force

HAZCOM—hazard communication

HMIRS—Hazardous Material Information and Resource System

HMMP—hazardous material management process

IDMT—independent duty medical technician

IHMP—installation HAZMAT management program

JSA—job safety analyses

MAJCOM—major command

MSG—mission support group

MSDS—material safety data sheet

OI—operating instruction

OSD—Office of the Secretary of Defense

OSHA—Occupational Safety and Health Administration

PH—public health flight

RCRA—Resource Conservation and Recovery Act

SAF—Secretary of the Air Force

SAF/IE—Assistant Secretary of the Air Force for Installations, Environment, and Logistics

SG—Surgeon General

SOFA—status of forces agreements

TO—technical order

TSCA—Toxic Substances Control Act

Terms

Chemical—Any element, chemical compound or mixture of elements, or compounds.

Chemical Manufacturer—An employer with a work area where chemical(s) are produced for use or distribution.

Container—Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this standard, pipes or piping systems and engines, fuel tanks, or other operating systems in a vehicle are not considered to be containers.

ESOH-MIS—An AF approved automated system to store and maintain all information associated with environment, safety, and occupational health surveillance data and work area/shop requirements.

Employee—A worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Office workers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

Exposure—The intensity, frequency, and length of time personnel are subjected to a hazard.

Hazard Warning—Any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the specific physical and health hazard(s), including target organ effects, of the chemical(s) in the container(s).

HAZMART—As the customer service desk for the IHMP, it is the only entity on an installation authorized to issue government-owned HAZMAT. At a minimum, a HAZMART is a facility or location where customers can receive support for obtaining HAZMAT, and where HAZMATs are managed and tracked. A HAZMART is intended to be the primary location on an installation where LRS personnel stock, store, issue, and distribute HAZMAT. Each installation must have at least one primary HAZMART established by, and accountable to the LRS Commander. The HMMP team may designate additional unit-controlled supply activities as HAZMARTs performing all the functions of the primary HAZMART. The HAZMART responsibilities include the receipt and entry of data on Government-wide Purchase Card purchases of HAZMAT, and the receipt and entry of data on contractor usage of HAZMAT.

Hazardous Chemical (HAZMAT)—Any chemical that is a physical or health hazard and requires an

MSDS as defined in AFI 32-7086, *Hazardous Materials Management*, and all Class I and Class II ozone-depleting substances (ODS). Also known as hazardous material or HAZMAT.

Hazardous Material Management Process—A standard methodology used to manage and track the procurement and use of HAZMAT to support Air Force missions, protect the safety and health of personnel on Air Force installations and communities surrounding Air Force installations from misuse of HAZMAT, minimize Air Force use of HAZMAT consistent with mission needs, and to maintain Air Force compliance with environmental requirements for HAZMAT usage. The HMMP is composed of three interdependent programs: the Installation Hazardous Material (HAZMAT) Pharmacy Program (IHMP), the Weapons System Hazardous Material (HAZMAT) Program (WSHP), and the ODS Program (ODSP).

Health Hazard—Includes materials which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes

Immediate Use Materials—Any hazardous chemical that will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Installation—For purposes of the Federal HAZCOM standard and this AFI, an installation is a single geographic location with one or more work area/shops. The AF does not constitute one installation and must have programs that address hazards at each installation. Note: 29 CFR 1910.1200 uses the term workplace instead of installation.

Label—Any written, printed, or graphic material, displayed on or affixed to containers of hazardous chemicals.

Laboratory—A facility where relatively small quantities of hazardous materials are used on a non-production basis. Use of hazardous materials must meet all of the following conditions: i) chemical manipulations are carried out on a laboratory scale with all work with substances in containers designed to be easily and safely manipulated by one person; ii) Multiple chemical procedures or chemicals are used; iii) Procedures involved are not part of a production process, nor in any way simulate a production process; iv) Protective laboratory practices and equipment are available.

Laboratory Standard—OSHA, 29 CFR 1910.1450, “Occupational Exposure to Hazardous Chemicals in Laboratories.” See AFOSH Standard 48-22, *Occupational Exposure to Hazardous Chemicals in Laboratories*.

Material Safety Data Sheet (MSDS)—Written or printed material concerning a hazardous chemical that is prepared according to 29 CFR 1910.1200.

Ozone Depleting Substance (ODS)—Substances that are primarily Class I or Class II ODS as defined by the “Montreal Protocol on Substances that Deplete the Ozone Layer.”

Physical Hazard—Includes materials for which there is scientifically valid evidence it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Produce—To manufacture, process, formulate, blend, extract, generate, emit, or repackage.

Responsible Party—Someone who can provide additional information on the hazardous chemical and appropriate emergency procedures if necessary. This party is generally a manufacturer’s representative.

Trade Secret—Any confidential formula, pattern, process, device, or information or compilation of information that is used in an employer's business and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it.

Use—To package, handle, react, emit, extract, generate as a by-product or transfer.

Work Area/Shop—A room or defined space in an installation where hazardous chemicals are produced or used, and where employees are present. Note: Employees that often work outside the physically defined work area, such as pest management personnel during pesticide application or aircraft maintainers that take chemicals to the flightline, will have their hazards addressed as part of the work area/shop program.

Attachment 2

SAMPLE TRADE SECRET INFORMATION REQUEST LETTER

Office Symbol

Address

Base, Zip

Company Name

Address

City, State, Zip

Dear Sir or Madam:

To meet Occupational Safety and Health Administration (OSHA) Hazard Communication Standard 29 CFR 1910.1200 requirements, I am requesting current material safety data sheets (MSDSs) for the following potentially hazardous materials the Air Force has purchased from your company. This request is made according to FED STD 313D, "Federal Standard, Preparation, and Submission of Material Safety Data Sheets."

Trade Name:

FSN:

Code/Color:

Mil Spec:

Part Number:

I am also requesting specific chemical identity of the components in this product including the percentages of all components. This information will be used only by health professionals to assess the chemical hazards of your product and for industrial hygiene needs.

All proprietary information will be kept confidential.

Please forward the information to: AFIOH, Brooks City-Base, TX 78235-5116, and

Office Symbol

Address

Base, Zip

Sincerely,

SIGNATURE BLOCK

Attachment 3**29 CFR 1910.1200/AFI 90-821 CROSS-REFERENCE**

29 CFR 1910.1200	Subject	AFI 90-821
(a)	Purpose	1.1.
(b)	Scope and Application	1.2.– 1.3.
(c)	Definitions	Attachment 1
(d)	Hazard Determination	2.4.
(e)	Written Hazard Communication Program	2.3.
(e)(1)(i)	Hazardous Chemical Lists	2.8.
(e)(1)(ii)	Non-Routine Tasks	2.9.
(e) (2)	Contractors in AF Work Area/ Shops	1.2.2.4.and 2.10.
(f)	Labels and Other Forms of Warning	2.6.
(g)	Material Safety Data Sheets	2.5.
(h)	Employee Information and Training	2.7.
(i)	Trade Secrets	1.6.2.2.5.. and 2.5.4.